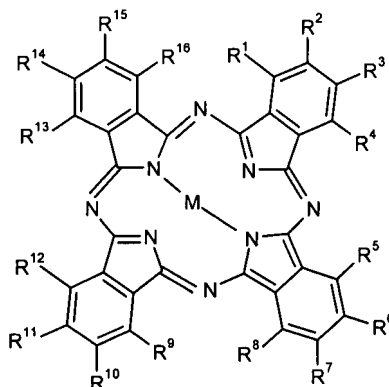


## IN THE CLAIMS

1. (currently amended): A phthalocyanine compound of Formula I



wherein at least the eight groups represented by  $R^1$ ,  $R^4$ ,  $R^5$ ,  $R^8$ ,  $R^9$ ,  $R^{12}$ ,  $R^{13}$  &  $R^{16}$  which groups are identical are  $-X-J$  wherein

J is selected from the group consisting of  $C_{1-6}$ -alkyl;  $C_{2-6}$ -alkenyl;  $C_{4-8}$ -cycloalkyl each being optionally substituted by a group selected from the group consisting of  $C_{1-4}$ -alkoxy,  $C_{1-4}$ -alkylthio,  $C_{6-12}$ -aryl,  $C_{6-12}$ -arylthio,  $C_{1-4}$ -alkylsulphonyl,  $C_{1-4}$ -alkylsulphonylamino,  $C_{1-4}$ -alkylsulphoxide, amino, mono- and di- $C_{1-4}$ -alkylamino, halogen, nitro, cyano and hydroxycarbonyl ( $-COOH$ ), hydroxysulphonyl ( $-SO_3H$ ) or dihydroxyphosphonyl ( $-PO_3H_2$ ) or  $C_{1-4}$ -alkyl esters thereof and from  $C_{6-12}$ -aryl optionally substituted by a group selected from the group consisting of  $C_{1-3}$ -alkyl,  $C_{1-3}$ -alkoxy,  $C_{1-3}$ -alkylthio,  $C_{1-3}$ -alkylsulphonyl,  $C_{1-3}$ -alkylsulphonylamino,  $C_{1-4}$ -alkylsulphoxide, amino, mono- and di- $C_{1-3}$ -alkylamino, halogen, nitro, cyano and hydroxycarbonyl, hydroxysulphonyl or dihydroxyphosphonyl, hydroxycarbonyl- $C_{1-3}$ -alkyl, hydroxysulphonyl- $C_{1-3}$ -alkyl, dihydroxyphosphonyl- $C_{1-3}$ -alkyl or  $C_{1-3}$ -alkyl esters thereof;

M is an oxymetal group selected from the group consisting of VO, TiO and MoO;

X is S, Se, Te or NT;

T is H, alkyl or phenyl, or T & J, together with the N atom to which they are attached, form an aliphatic or aromatic ring provided this N atom is not positively charged; provided where J is aryl, T is not aryl;

and the remaining groups from  $R^1$  to  $R^{16}$  are independently selected from H, halogen, ~~OJ~~, hydroxycarbonyl, hydroxysulphonyl, dihydroxyphosphonyl, hydroxycarbonyl-C<sub>1-3</sub>-alkyl, hydroxysulphonyl-C<sub>1-3</sub>-alkyl and dihydroxyphosphonyl-C<sub>1-3</sub>-alkyl, provided that at least one of  $R^2$  and  $R^3$ , at least one of  $R^6$  and  $R^7$ , at least one of  $R^{10}$  and  $R^{11}$  and at least one of  $R^{14}$  and  $R^{15}$  is hydrogen, wherein each of  $R^2$ ,  $R^3$ ,  $R^6$ ,  $R^7$ ,  $R^{10}$ ,  $R^{11}$ ,  $R^{14}$  and  $R^{15}$  is H with the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6-(ethylthio)VOPc.

2. (canceled)

3. (previously presented): A phthalocyanine compound according to Claim 1 wherein the compound has an electronic absorption peak from 750 to 1100 nm.

4. (currently amended): A phthalocyanine compound according to Claim 3 wherein the compound has ~~at least 90% of its~~ an absorption strength in the region above 400nm and at least 90% of said absorption strength is at or above 750 nm.

5. (previously presented): A phthalocyanine compound according to Claim 3 wherein the electronic absorption peak has a band width at half peak height in solution of less than 60 nm.

6. (previously presented): A phthalocyanine compound according to Claim 1 wherein J is selected from the group consisting of C<sub>3-6</sub>-alkyl, which may be straight or branched chain; C<sub>2-4</sub>-alkenyl; cyclohexyl; phenyl; naphtha-1-yl or naphtha-2-yl, each of which is optionally substituted.

7. (previously presented): A phthalocyanine compound according to Claim 6 wherein J is an optionally substituted phenyl.

8. (previously presented): A phthalocyanine compound according to Claim 6 wherein the substituent(s) for the phenyl; naphtha-1-yl or naphtha-2-yl groups represented by J is(are) independently selected from the group consisting of C<sub>1-2</sub>-alkyl; C<sub>1-2</sub>-alkoxy; C<sub>1-2</sub>-alkylthio; C<sub>1-2</sub>-alkylsulphonyl; C<sub>1-2</sub>-alkylsulphoxide; amino;

mono- and di-C<sub>1-2</sub>-alkylamino; halogen; nitro; cyano; hydroxycarbonyl, hydroxysulphonyl, dihydroxy-phosphonyl, hydroxycarbonyl-C<sub>1-3</sub>-alkyl, hydroxysulphonyl-C<sub>1-3</sub>-alkyl and dihydroxy-phosphonyl-C<sub>1-3</sub>-alkyl and C<sub>1-2</sub>-alkyl esters thereof.

9. (previously presented): A phthalocyanine compound according to Claim 6 wherein the optionally substituted phenyl; naphtha-1-yl or naphtha-2-yl groups represented by J are selected from the group consisting of phenyl, 4-methylphenyl, 2-methylphenyl, 4-i-propylphenyl, 2,4-dimethyl-phenyl, 2,5-dimethylphenyl, 3,5-dimethylphenyl, 4-methoxyphenyl, 4-methylthiophenyl, 3-(2-[methoxycarbonyl]ethyl)phenyl, 3-(hydroxycarbonyl)phenyl, 4-(hydroxysulphonyl)-phenyl, 2-chlorophenyl, 4-bromophenyl, 3,5-dichlorophenyl, naphtha-1-yl and naphtha-2-yl.

10. (previously presented): A phthalocyanine compound according to Claim 1 wherein the compound has a formula:



wherein

M is an oxymetal group selected from the group consisting of VO, TiO and MoO;

Pc is the phthalocyanine nucleus;

X is S, Se, Te or NT wherein T is H, C<sub>1-4</sub>-alkyl or phenyl; and

R is phenyl or naphthyl each of which is optionally substituted by up to 5 groups selected from the group consisting of C<sub>1-3</sub>-alkyl, C<sub>1-3</sub>-alkoxy, C<sub>1-3</sub>-alkylthio, C<sub>1-3</sub>-alkylsulphonyl, C<sub>1-3</sub>-alkylsulphonyl-amino, C<sub>1-3</sub>-alkylsulphoxide, amino, mono- and di-C<sub>1-3</sub>-alkylamino, halogen, nitro, cyano and hydroxycarbonyl, hydroxy-sulphonyl, dihydroxyphosphonyl, hydroxycarbonyl-C<sub>1-3</sub>-alkyl, hydroxysulphonyl-C<sub>1-3</sub>-alkyl or hydroxyphosphonyl-C<sub>1-3</sub>-alkyl or C<sub>1-3</sub>-alkyl esters thereof; or

R & T together form a piperidiny, piperaziny, morpholinyl or pyrrolinyl ring.

11. (previously presented): A phthalocyanine compound according to Claim 1 wherein X is sulphur.

12. (currently amended): A phthalocyanine compound according to Claim 1 wherein each of R<sup>1</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>12</sup>, R<sup>13</sup> & R<sup>16</sup> is 4-methylphenylthio and each of R<sup>2</sup>, R<sup>3</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>14</sup> & R<sup>15</sup> is H.

13. (previously presented): A phthalocyanine compound according to Claim 1 wherein M is VO.

Claims 14 – 17 (cancelled)

18. (previously presented): A method for detecting an article carrying a superficial image by scanning with an infra-red detector wherein the image comprises a compound of formula I in claim 1 without the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6-(ethylthio)VOPc.

Claims 19 – 21 (cancelled)

22. (original): An ink comprising a compound of formula I in claim 1 without the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6(ethylthio) VOPc.

23. (original): An ink according to Claim 22 also comprising a colorant.

24. (previously presented): An ink according to Claim 22 also comprising an alkoxylated or polyalkoxylated acrylate monomer and a photoinitiator.

Claim 25 (cancelled)

26. (original): A method of establishing the authenticity of an article or substrate comprising marking the article or substrate with a mark including a compound according to formula I in claim 1 without the proviso that the compound is not octa-3,6-(phenylthio)VOPc, octa-3,6-(methylthio)TiOPc or octa-3,6-(ethylthio)VOPc and detecting and/or measuring a characteristic absorption of infrared radiation by the mark.

27. (previously presented): The phthalocyanine compound according Claim 3 wherein the compound has an electronic absorption peak from 800 to 1000 nm.

28. (currently amended): The phthalocyanine compound according to Claim 4 wherein the compound has ~~at least 95% of its~~ an absorption strength in the region above 400 nm and at least 95% of said absorption strength is at or above 750 nm.